

# The National Birth Center Study II

“Outcomes of Care in Birth Centers: Demonstration of a Durable Model”

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## About the Study

- The birth center study included 15,574 women who received care in 79 midwife-led birth centers in 33 U.S. states from 2007 through 2010.
- 13,030 (84%) of the women planning a birth center birth at the onset of labor gave birth at birth centers. 2,544 (16%) women gave birth at a hospital.
- Results were collected using the American Association of Birth Centers (AABC) Uniform Data Set, an online data registry developed by AABC with a task force of maternity care and research experts.
- Federal or state government programs (Medicaid, Medicare, Children's Health Insurance Program, or TRICARE) were the primary payers for nearly a third of births recorded in the study.

## Key Findings

**Midwife-led birth centers are a strong model for decreasing the high rate of cesarean birth in the U. S., while maintaining the highest safety standards.**

- Fewer than 1 in 16 (6%) of the study participants had a cesarean birth, while the U.S. cesarean rate reached 32.8% in 2010. For similar low-risk women receiving care in the hospital setting, the current rate is estimated to be almost 1 in 4 (24%).<sup>1</sup>
- The state of U.S. maternity care is of concern to care providers across specialties. Professional associations of midwives, nurses, and physicians have prioritized efforts to decrease the cesarean rate.<sup>2,3,4,5,6,7</sup>
- While cesarean birth is sometimes necessary due to the condition of the mother or baby, the procedure has many short- and long-term implications for women, their newborns, and future pregnancies.<sup>8,9,10,11,12,13,14,15</sup>
- Fetal and newborn mortality rates in the study were low (0.47/1000 births and 0.40/1000 births, respectively) and were comparable to those in low-risk births in hospital settings. There were no maternal deaths.
- Most transfers from birth center to hospital were not emergencies, with only 1.9% of women or their newborns experiencing a complication during labor or after birth that required urgent transfer to a hospital.

**Increased use of birth centers would lower direct and indirect costs to the American health care system.**

- Payments for care are approximately 50% more for cesarean birth than for vaginal birth and, for both mother and newborn, are concentrated (76-80% of all payments)

in the intrapartum and early postpartum and neonatal phase of care.<sup>16</sup>

- Given lower costs in the birth center setting as well as low rates of cesarean birth, the 15,574 births in this study may have saved more than \$30 million in facility costs alone based on Medicare/Medicaid rates, not including additional savings in costs of other providers, anesthesia, and newborn care in hospital settings.
- If even 10% of the approximately 4 million U.S. births each year occurred in birth centers, the potential savings in facility service fees alone could reach \$1 billion per year. In addition, U.S. spending on maternity care could decline by more than \$5 billion if only 15% of pregnant women gave birth via cesarean.<sup>17,18</sup>
- Midwife-led birth centers deliver high-quality, patient-centered care with improved outcomes at lower cost. The birth center model should receive timely and fair reimbursement from private and public payers in order to ensure its sustainability. The net result will be healthier moms and babies and fewer dollars spent.

## Background

### **Childbirth Information**

- Childbirth is a normal, physiologic process for the majority of healthy, pregnant women and their babies. Approximately 85% of pregnancies are generally considered at low risk for complications<sup>19</sup>, yet routine maternity care in the U.S. is technology-intensive and expensive.<sup>20,21</sup>
- In 2008, care of childbearing women and their newborns was the most common reason for hospitalization in the U.S. resulting in total hospital charges of \$97.4 billion, making it the single-largest contributor as a health condition to the national hospital bill.<sup>22</sup>
- Nearly half of all births in the U.S. are funded by federal and state government programs.<sup>23</sup>
- The cesarean birth rate has steadily increased since 1996 when the rate was 21%.<sup>24,25</sup> With more than 4 million births per year and a current cesarean rate of 1 in 3 women (33%)<sup>26</sup>, cesarean birth is the most common inpatient surgical procedure performed in the U.S. today.<sup>27</sup>

### **Birth Centers and Midwives**

- A birth center is "a homelike facility existing within the health care system with a program of care designed in the wellness model of pregnancy and birth. Birth centers provide family centered care for healthy women before, during, and after normal pregnancy, labor, and birth."<sup>28</sup>

- An infrastructure of Standards for Birth Centers from the AABC, an accreditation mechanism by the CABC, and licensure in 41 states provides the foundation for U.S. birth centers.<sup>29</sup>
- Most birth centers have midwives as the primary care providers, working collaboratively with physicians, hospitals, and other maternity care professionals in a team approach to maternity care.
- Midwives are health care professionals responsible for the pregnancy, labor, and childbirth care of the women they serve.
- Women who have no serious health issues, want to be actively involved in their pregnancy care, and are anticipating an uncomplicated labor and birth are ideal candidates for birth center care.<sup>30</sup>
- Birth center care begins with the first prenatal visit, and includes education for pregnancy, nutrition, labor and birth, breastfeeding, parenting, and general women's health.<sup>31</sup>
- Although most women planning a birth center birth successfully give birth at their chosen birth center, all birth centers have a system for providing access to hospital care should a complication arise and transfer become necessary.<sup>32</sup>

<sup>1</sup> Menacker, Fay. Natl Vital Stat Rep. 2005;54:1-9. Available at: [http://www.cdc.gov/nchs/data/nvsr/nvsr54/nvsr54\\_04.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr54/nvsr54_04.pdf).

<sup>2</sup> National Quality Forum: <http://www.qualitymeasures.ahrq.gov/content.aspx?id=3414>.

<sup>3</sup> Spong, Catherine Y. MD; Berghella, Vincenzo MD; Wenstrom, Katharine D. MD; Mercer, Brian M. MD; Saade, George R. MD. Preventing the First Cesarean Delivery: Summary of a Joint Eunice Kennedy Shriver National Institute of Child Health and Human Development, Society for Maternal-Fetal Medicine, and American College of Obstetricians and Gynecologists Workshop. *Obstetrics & Gynecology*, 120:5 (1181–1193) doi: <http://10.1097/AOG.0b013e3182704880>.

<sup>4</sup> "The Joint Commission Expands Performance Measurement Requirements for General Medical/Surgical Hospitals." The Joint Commission. 2012. Available at: [http://www.pwrnewmedia.com/2012/joint\\_commission/oryx](http://www.pwrnewmedia.com/2012/joint_commission/oryx).

<sup>5</sup> "Nursing Support of Laboring Women." AWHONN. Available at: [http://www.awhonn.org/awhonn/content.do?name=05\\_HealthPolicyLegislation/5H\\_PositionStatements.htm](http://www.awhonn.org/awhonn/content.do?name=05_HealthPolicyLegislation/5H_PositionStatements.htm).

<sup>6</sup> "NPP Action Teams." National Quality Forum. 2012. Available at: [http://www.qualityforum.org/Setting\\_Priorities/NPP/NPP\\_Action\\_Teams.aspx](http://www.qualityforum.org/Setting_Priorities/NPP/NPP_Action_Teams.aspx)

<sup>7</sup> "ACNM Health Reform Activities." American College of Nurse-Midwives. Available at: <http://www.midwife.org/ACNM-Health-Reform-Activities>.

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<sup>10</sup> National Institutes of Health state-of-the-science conference statement: Cesarean delivery on maternal request March 27-29, 2006. *Obstet Gynecol* 2006; 107(6):1386-97.

<sup>11</sup> Solheim KN, et al. The effect of cesarean delivery rates on the future incidence of placenta previa, placenta accreta, and maternal mortality. *JMFNM* 2011; 24(11): 1341-1346.

<sup>12</sup> Clark SL, et al. Maternal death in the 21st century: causes, prevention, and relationship to cesarean delivery. *Am J Obstet Gynecol* 2008; 199:36.e1-36.e5.

<sup>13</sup> MacDorman MF et al. Neonatal mortality for primary cesarean and vaginal births to low risk women: application of an "intention to treat" model. *BIRTH* 2008, 35(1):3-8.

<sup>14</sup> Declercq E, et al. Mothers' Reports of Postpartum Pain Associated with Vaginal and Cesarean Deliveries: Results of a National Survey. *BIRTH* 2008; 35:1.

<sup>15</sup> Clark EA, Silver RM. Long-term maternal morbidity associated with repeat cesarean delivery. *Am J Obstet Gynecol* 2011;205:52–10.

<sup>16</sup> "The Cost of Having a Baby in the United States." Childbirth Connection. 2013. Available at: <http://transform.childbirthconnection.org/wp-content/uploads/2013/01/Cost-of-Having-a-Baby1.pdf>.

<sup>17</sup> "The Cost of Having a Baby in the United States." Childbirth Connection. 2013. Available at: <http://transform.childbirthconnection.org/wp-content/uploads/2013/01/Cost-of-Having-a-Baby1.pdf>.

<sup>18</sup> "The Cost of Having a Baby in the United States." Transform Maternity Care. 2013. Available at: <http://transform.childbirthconnection.org/reports/cost/>.

<sup>19</sup> Menacker, Fay. Natl Vital Stat Rep. 2005;54:1-9. Available at: [http://www.cdc.gov/nchs/data/nvsr/nvsr54/nvsr54\\_04.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr54/nvsr54_04.pdf).

<sup>20</sup> Wier, LM, Andrews RM. The National Hospital Bill: The Most Expensive Conditions by Payer, 2008. HCUP Statistical Brief #107. Rockville, MD: Agency for Healthcare Research and Quality; 2011. Available at: <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb107.pdf>.

<sup>21</sup> Wier LM (Thomson Reuters), Pfunter A (Thomson Reuters), Maeda J (Thomson Reuters), Stranges E (Thomson Reuters), Ryan K (Thomson Reuters), Jagadish P (AHRQ), Collins Sharp B (AHRQ), Elixhauser A (AHRQ). HCUP Facts and Figures: Statistics on Hospital-based Care in the United States, 2009. Rockville, MD: Agency for Healthcare Research and Quality; 2011. Available at: <http://www.hcup-us.ahrq.gov/reports.jsp>. Accessed July 21, 2012.

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<sup>27</sup> Wier LM (Thomson Reuters), Pfunter A (Thomson Reuters), Maeda J (Thomson Reuters), Stranges E (Thomson Reuters), Ryan K (Thomson Reuters), Jagadish P (AHRQ), Collins Sharp B (AHRQ), Elixhauser A (AHRQ). HCUP Facts and Figures: Statistics on Hospital-based Care in the United States, 2009. Rockville, MD: Agency for Healthcare Research and Quality; 2011. Available at: <http://www.hcup-us.ahrq.gov/reports.jsp>. Accessed July 21, 2012.

<sup>28</sup> American Association of Birth Centers. Definition of a Birth Center. Available at: <http://www.birthcenters.org/about-aabc/position-statements/definition-of-birth-center>.

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<sup>32</sup> American Association of Birth Centers. Standards for Birth Centers. Perkiomenville, PA; 2007. Available at: <http://www.birthcenters.org/open-a-birth-center/birth-center-standards>.